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(54) Title: ADENOVIRAL VECTOR VACCINE

(57) Abstract: Provided are adenoviral vectors for generating an immune response to antigen. The vectors comprise a transcription unit encoding a secretable polypeptide, the polypeptide comprising a secretory signal sequence upstream of a tumor antigen upstream of CD40 ligand, which is missing all or substantially all of the transmembrane domain rendering CD40L secretable. Also provided are methods of generating an immune response against cells expressing a tumor antigen by administering an effective amount of the invention vector. Further provided are methods of generating an immune response against cancer expressing a tumor antigen in an individual by administering an effective amount of the invention vector. Still further provided are methods of generating immunity to infection by human papilloma virus (HPV) by administering an effective amount of the invention vector which encodes the E6 or E7 protein of HPV. The immunity generated is long term.

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/36237

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : C12N 15/64; A61K 31/70

US CL : 435/91.4; 514/44

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**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAS Online, MEDLINE, EAST, DERWENT**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T	ZHANG, L. et al. An adenoviral vector cancer vaccine that delivers a tumor-associated antigen/CD40 ligand fusion protein to dendritic cells. PNAS. 09 December 2003, Vol. 100, No. 25, pages 15101-15106, see entire document.	1-34
A	LIU, Y. et al. Adenovirus mediated CD40 ligand gene-engineered dendritic cells elicit enhanced CD8+ cytotoxic T-cell activation and anti-tumor immunity. Cancer Gene Therapy. 2002, Vol. 9, pages 202-208. see entire document.	1-34

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